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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/024,613

Applicant(s)

STACHOWIAK, GRZEGORZ

Examiner

Andrew T Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) 26-51 and 56-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25, 52-55, 59 and 60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,7. 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention.

#### Species 1

Claims 1-25 and 55, drawn to a coated article comprising titanium oxide dielectric layers.

#### Species 2

Claims 26-34, 56 and 58, drawn to a coated article comprising silicon zirconium nitride dielectric layers.

#### Species 3

Claims 35-51, 57 and 58, drawn to a coated article comprising niobium oxide dielectric layers.

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 52-54, 59, and 60 are generic.
3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.
4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

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the election, applicant must indicate which are readable upon the elected species. MPEP §

809.02(a).

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with Joseph A. Rhoa on 10/9/03 a provisional election was made without traverse to prosecute the invention of Species 1, claims 1-25 and 55 (and generic claims 52-54, 59, and 60). Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-51 and 56-58 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 6 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what "x" represents in NiCrO<sub>x</sub> or NiCrN<sub>x</sub>. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-5, 7-13, 15-17, 19-24, 52-55 and 59-60 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,045,896 to Boire et al. (hereinafter referred to as Boire).

Regarding claims 1-5, 7-13, 15-17, 19-24, 52-55 and 59-60, Boire discloses a coated article (see entire document including Figure 1) including a coating supported by a glass substrate (1), the coating comprising first and second infrared reflecting layers comprising silver (3,6), a first dielectric (barrier) layer (2a), a second dielectric (barrier) layer (5a), an absorbent layer (8a), and a third dielectric (barrier) layer (8b). Boire discloses that the coated article has a visible light transmission of from 50 to 85% (column 9, lines 15-23).

Boire discloses that each dielectric (barrier) layer may be based on a silicon compound such as silicon oxide, silicon nitride, or silicon oxynitride (column 5, lines 27-31). Boire also discloses that each dielectric (barrier) layer may be a combination of layers of dielectric material such as titanium oxide and/or tin oxide (column 7, lines 19-52). Therefore, Boire discloses the use of multi-layer dielectric (barrier) layers such as  $\text{TiO}_2/\text{Si}_3\text{N}_4$ ,  $\text{TiO}_2/\text{SnO}_2$ , and/or  $\text{TiO}_2/\text{SnO}_2/\text{SiO}_2$ .

Regarding claims 9, 20 and 59, considering the substantially identical coated article disclosed by Boire, compared to the currently claimed art, it appears that the coated article possesses the currently claimed properties.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or

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substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 11 and 60, Boire discloses that the coated article may be an IG window unit (column 9, lines 6-14).

Regarding claim 22, Boire discloses that the coated article may be a window (column 1, lines 8-21).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boire as applied to claims 1-5, 7-13, 15-17, 19-24, 52-55 and 59-60 above, and further in view of USPN 6,340,529 to Ebisawa.

Boire discloses that each silver layer may be sandwiched between thin sacrificial layers (column 1, lines 29-35, and column 5, lines 42-58). Boire does not specifically mention sacrificial layers comprising NiCr, but Ebisawa discloses that it is known in the art to use sacrificial layers comprising NiCr, NiCrO<sub>x</sub>, or NiCrN<sub>x</sub> (see entire document including column 4, lines 9-35). It would have been obvious to one having ordinary skill in the art at the time the

invention was made to make the sacrificial layers of Boire from any suitable material, such as NiCr, NiCrO<sub>x</sub>, or NiCrN<sub>x</sub>, as disclosed by Ebisawa, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

13. Claims 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boire as applied to claims 1-5, 7-13, 15-17, 19-24, 52-55 and 59-60 above, and further in view of USPN 6,495,251 to Arbab et al. (hereinafter referred to as Arbab)

Boire does not specifically mention using a graded silicon oxynitride outer dielectric (barrier) layer, but Arbab discloses that it is known in the art to use a graded silicon oxynitride dielectric (barrier) layer as an outer dielectric (barrier) layer of a coated article to provide protection against mechanical and chemical attack (see entire document including column 4, lines 3-64, column 5, lines 13-27, and column 6, lines 38 through column 7, line 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the outer dielectric (barrier) layer of Boire from any suitable dielectric material, such as a graded silicon oxynitride layer, as disclosed by Arbab, because a graded silicon oxynitride layer would provide protection against mechanical and chemical attack and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

### *Conclusion*

14. The following patent is cited to further show the state of the art with respect to index grading:

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USPN 6,355,334 to Rondeau et al. (especially column 2, lines 6-20)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145.

The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

atp



ANDREW T. PIZIALI  
PATENT EXAMINER



DEBORAH JONES  
SUPERVISORY PATENT EXAMINER